Chemical Engineering, MS

Program Description

Degree Awarded: MS Chemical Engineering

The chemical engineering faculty offer a graduate program leading to the MS in chemical engineering. Areas of research emphasis include but are not limited to:

- atmospheric aerosols
- biomolecular engineering
- biosensors
- chemical therapies for neurodegenerative diseases
- composite material synthesis and characterization
- electrochemistry
- electronic materials processing
- engineering education
- flexible display technology
- fuel cells
- inorganic membranes
- process design and operations
- protein synthesis
- surface, interface and colloidal science
- transport phenomena in living systems
- water purification

A graduate handbook detailing information on graduate studies in chemical engineering is available on the school website. Students should contact the SEMTE Graduate Advising Office for additional details.

At a Glance

- College/School: Ira A. Fulton Schools of Engineering
- Location: Tempe campus
Accelerated Degrees

This degree is also offered in an accelerated format with:

Chemical Engineering, BSE

Acceptance to the graduate program requires a separate application. During their junior and senior years, eligible students will be advised by their academic departments to apply.

Degree Requirements

33 credit hours and a thesis, or
33 credit hours including the required applied project course (CHE 593)

Required Core (9 credit hours)
CHE 533 Transport Processes I (3)
CHE 543 Thermodynamics of Chemical Systems (3)
CHE 544 Chemical Reactor Engineering (3)

Technical Electives (6 or 9 credit hours)

Electives (6 or 12 credit hours)

Other Requirement (3 credit hours)
CHE 591 Seminar (3)

Culminating Experience (3 or 6 credit hours)
CHE 593 Applied Project (3)
CHE 599 Thesis (6)

Additional Curriculum Information

This degree has two options: a thesis option and a nonthesis option. The nonthesis option has an applied project. Both options require a faculty advisor. All admitted students are assumed to be in a nonthesis option until a faculty advisor has been secured. All candidates for the master's degree in chemical engineering are required to complete an approved plan of study.

The composition of the technical electives will vary based on each student's final culminating experience. At least one technical elective course (three credit hours) must be taken from outside of chemical engineering. CHE 590 Reading and Conference may be taken as a technical elective only once, for a maximum of three credit hours. Thesis-based students must select a minimum of nine credit hours of technical electives and may apply three credit hours of CHE 592 Research toward the nine credit hours of technical electives. Students
who are pursuing the applied project option must register for three credit hours of CHE 593 and will have to complete a total of six credit hours of technical electives.

Students who are in the applied project option take 12 credit hours of open electives and students in the thesis option take 6 credit hours of open electives. Please see the academic unit to ensure the elective coursework is appropriate for the program before registering for these courses. The academic unit must approve all open elective coursework to include on the plan of study.

All full-time chemical engineering graduate students are required to successfully complete the CHE 591 seminar course during every semester of residence. Part-time students are required to complete CHE 591 at least three times. Only three credit hours of seminar apply toward the master's degree regardless how many times it is taken. A candidate whose undergraduate degree was in a field other than chemical engineering may be required to complete more than 33 credit hours.

**Admission Requirements**

Applicants must fulfill the requirements of both the Graduate College and the Ira A. Fulton Schools of Engineering.

Applicants are eligible to apply to the program if they have earned a bachelor's or master's degree from a regionally accredited institution.

Applicants must have a minimum of a 3.50 cumulative GPA (scale is 4.00 = "A") in the last 60 hours of a student's first bachelor's degree program, or applicants must have a minimum of a 3.50 cumulative GPA (scale is 4.00 = "A") in an applicable master's degree program.

All applicants must submit:

1. graduate admission application and application fee
2. official transcripts
3. official GRE score
4. personal statement
5. resume or curriculum vitae
6. three letters of recommendation
7. proof of English proficiency

**Additional Application Information**

An applicant whose native language is not English (regardless of current residency) must provide proof of English proficiency via a minimum score of 100 on the Internet-based TOEFL.
Admission to the 4+1 degree program requires a 3.5 ASU GPA (scale is 4.00 = "A") in degree applicable courses. All applications are subject to review and admission is not guaranteed.

Students should see the program website for application deadlines.

**Deadlines**

**Fall**

**Spring**

**Contact Information**

Chemical Engineering Program | ECG 207
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